

Docket No.: PF-0442-2 RCE

**AMENDMENTS TO THE CLAIMS****Listing of Claims:**

Claims 1-2 (canceled)

Claim 3. (**Currently Amended**) An isolated polynucleotide encoding a polypeptide selected from the group consisting of:

- a.) a polypeptide comprising the amino acid sequence of SEQ ID NO:1,
- b.) a polypeptide comprising an amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:1, ~~said polypeptide having cyclic nucleotide phosphodiesterase activity,~~
- c.) a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, said fragment having cyclic nucleotide phosphodiesterase activity, and
- d.) an immunogenic fragment of a polypeptide having of at least 5 amino acids of the amino acid sequence of SEQ ID NO:1, said immunogenic fragment is used to make an antibody which specifically binds to an isolated polypeptide selected from the group consisting of a), b) and c).

Claims 4-5 (canceled)

Claim 6. (Original) A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 3.

Claim 7. (Original) A cell transformed with a recombinant polynucleotide of claim 6.

Claim 8. (**Previously presented**) A method for producing a polypeptide encoded by the polynucleotide of claim 3, the method comprising:

- a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide, and said recombinant polynucleotide comprises a promoter sequence operably linked to a polynucleotide of claim 3, and

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- b) recovering the polypeptide so expressed.

Claims 9-10 (canceled)

Claim 11. (Currently amended) An isolated polynucleotide selected from the group consisting of:

- a) a polynucleotide comprising the polynucleotide sequence of SEQ ID NO:2,
- b) a polynucleotide comprising a polynucleotide sequence at least 90% identical to the polynucleotide sequence of SEQ ID NO:2, ~~encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:1 and said polypeptide having cyclic nucleotide phosphodiesterase activity;~~
- c) a polynucleotide complementary to a polynucleotide of a),
- d) a polynucleotide complementary to a polynucleotide of b) and
- e) an RNA equivalent of a)-d).

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Claim 12 (canceled)

Claim 13. (Original) A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 11, the method comprising:

- a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and
- b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

Claim 14. (Original) A method of claim 13, wherein the probe comprises at least 60 contiguous nucleotides.


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**Claim 15. (Original)** A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 11, the method comprising:

- a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and
- b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof.

**Claims 16-19 (canceled)**

**Claim 20. (Withdrawn - currently amended)** A method for screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a polynucleotide sequence of ~~claim 23~~ claim 53, the method comprising:

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- a) exposing a sample comprising the target polynucleotide to a compound, under conditions suitable for the expression of the target polynucleotide,
  - b) detecting altered expression of the target polynucleotide, and
  - c) comparing the expression of the target polynucleotide in the presence of varying amounts of the compound and in the absence of the compound.

**Claim 21. (Original)** A method for assessing toxicity of a test compound, said method comprising:

- a) treating a biological sample containing nucleic acids with the test compound;
- b) hybridizing the nucleic acids of the treated biological sample with a probe comprising at least 20 contiguous nucleotides of a polynucleotide of claim 11 under conditions whereby a specific hybridization complex is formed between said probe and a target polynucleotide in the biological sample, said target polynucleotide comprising a polynucleotide sequence of a polynucleotide of claim 11 or fragment thereof;
- c) quantifying the amount of hybridization complex; and

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- d) comparing the amount of hybridization complex in the treated biological sample with the amount of hybridization complex in an untreated biological sample, wherein a difference in the amount of hybridization complex in the treated biological sample is indicative of toxicity of the test compound.

Claims 22-49 (canceled)

Claims ~~50~~-51 (not entered)

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1.124

Claim <sup>50</sup>~~52~~. (New) A method of claim 8, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:1.

Claim <sup>51</sup>~~53~~. (New) A polynucleotide of claim 11, comprising the polynucleotide sequence of SEQ ID NO:2.

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